

## **LAPORAN PRAKTIKUM 4**

**Mata Kuliah Pemograman Berorientasi Objek**



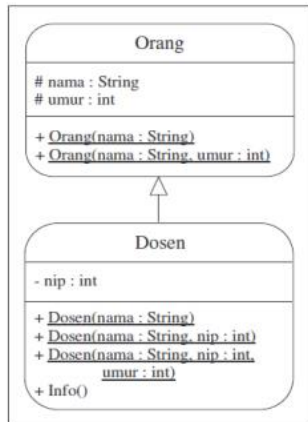
Oleh :

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**2022**

## Praktikum 4 PBO

### 1. Buatlah program berdasarkan UML berikut



### Source Code

- PHP

```
Prak4No1.php X
Prak4No1.php > PHP Intelephense > html > body > div.container
1 <!DOCTYPE html>
2 <html lang="id">
3 <head>
4     <link rel="stylesheet" type="text/css" href="no1.css">
5     <title>Praktikum 4-No.1</title>
6 </head>
7 <body>
8 <div class="container">
9 <h2>Soal 1</h2>
10
11 <?php
12
13 class Orang {
14     protected $nama,$umur;
15     public function __construct($nama,$umur){
16         $this->nama = $nama;
17         $this->umur = $umur;
18     }
19 }
20
21 class Dosen extends Orang {
22     private $nip;
23     public function __construct($nama, $umur, $nip) {
24         $this->nip = $nip;
25         parent::__construct($nama, $umur);
26     }
27 }
```

```

28  ✓ public function hasil() {
29      return $this->nama . ' , umur ' . $this->umur . ' , NIP ' . $this->nip;
30  }
31  }
32  $dosen1 = new Dosen('Rava', 37, 20051397019);
33  $dosen2 = new Dosen('Safira', 29, 20051397110);
34  $dosen3 = new Dosen('Budi', 50, 20051397129);
35
36  ✓ echo $dosen1->hasil();
37      echo '<br> <br>';
38  ✓ echo $dosen2->hasil();
39      echo '<br> <br>';
40  ✓ echo $dosen3->hasil();
41      echo '<br> <br>';
42
43  ?>
44
45  </div>
46  </body>
47  </html>

```

- CSS

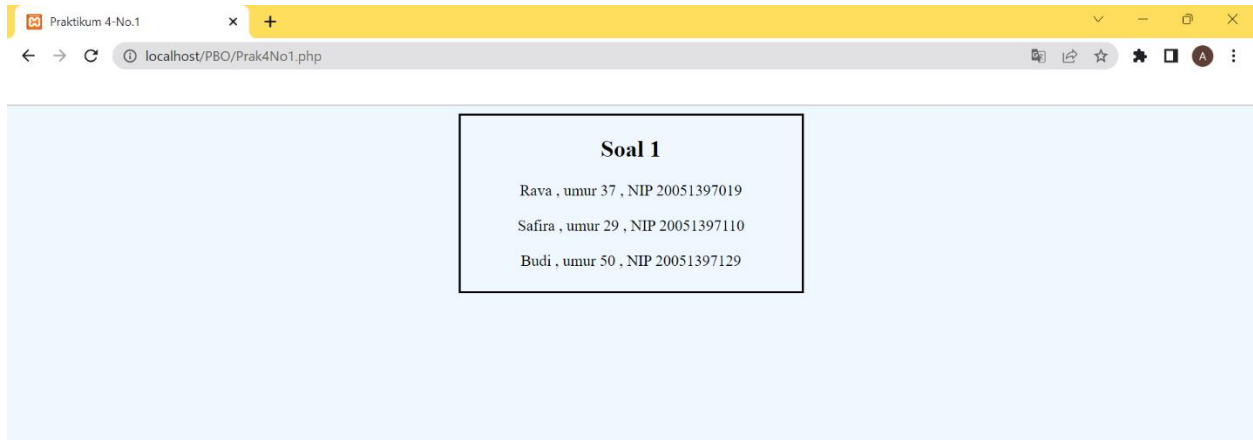
Prak4No1.php # no1.css X

```

# no1.css > body
1  body {
2      align-items: center;
3      background-color: #aliceblue;
4  }
5  h2{
6      text-align: center;
7  }
8
9  .container{
10     margin: auto;
11     text-align: center;
12     height: 180px;
13     width: 350px;
14     border: 2px solid black;
15 }

```

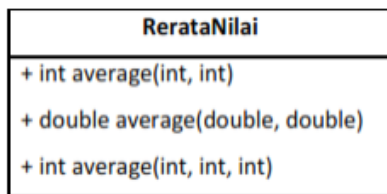
- **Output**



- **Analisis**

Menggunakan kata kunci super di konstruktor dan method, pada program tersebut masing-masing ditambahkan konstruktor dengan paramaterynya.

## 2. Buatlah Program berdasarkan UML dibawah ini



### Source Code

- **PHP**

```
indexNo2.php X
indexNo2.php > ...
1  <!-- Aini Azzah
2  | 21091397006
3  | 2021 B -->
4
5  <?php
6  |     require_once 'Prak4No2.php';
7  | ?>
8
9  <html lang="id">
10 <head>
11 |     <link rel="stylesheet" href="Prak4No2.css">
12 |     <title>Praktikum 4-No. 2</title>
13 </head>
```

```

14 <body>
15 <div class="container">
16 <h2>Soal No.2</h2>
17 <div class="form">
18 <form action="" method="post">
19 <input type="number" name="input1">
20 <input type="number" name="input2">
21 <input type="number" name="input3">
22 <button type="submit" name="submit">Submit</button>
23 </form>
24 </div>
25
26 <?php
27 if (isset($_POST['submit'])) {
28     if (!$_POST['input3']) {
29         $value1 = new RerataNilai2($_POST['input1'], $_POST['input2']);
30         echo $value1->average(0);
31     } else {
32         $value1 = new RerataNilai2($_POST['input1'], $_POST['input2']);
33         echo $value1->average($_POST['input3']);
34     }
35 }
36 ?>
37 </div>
38 </body>
39 </html>

```

indexNo2.php    Prak4No2.php X

Prak4No2.php > ...

```

1 <!-- Aini Azzah
2 21091397006
3 2021 B -->
4
5 <?php
6
7 class RerataNilai {
8     protected $value, $value2;
9     public function __construct($value, $value2){
10         $this->value = $value;
11         $this->value2 = $value2;
12     }
13
14     public function average($value3 = 0){
15         if ($value3 == 0) {
16             $str = $this->value . ' + ' . $this->value2 . ' / 2 = ';
17             return $str . ($this->value += $this->value2 ) / 2;
18         } else {
19             $str = '(' . $this->value . ' + ' . $this->value2 . ' + ' . $this->value2 . ' ) / 3 = ';
20             return $str . ($this->value += $this->value2 += $value3 ) / 3;
21         }
22     }
23 }
24
25
26
27 class RerataNilai2 extends RerataNilai{
28     public function __construct($value, $value2){
29         parent::__construct($value, $value2);
30     }
31
32     public function average($value3 = 0){
33         return parent::average($value3);
34     }
35 }
36
37 ?>

```

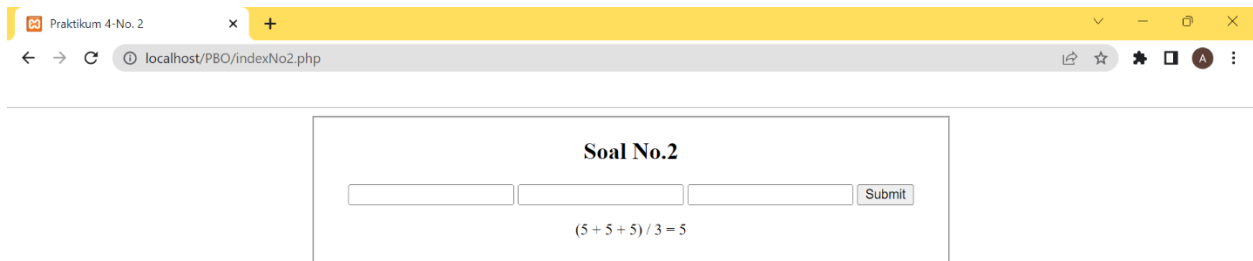
- CSS

```

# Prak4No2.css > .container
1  .container {
2      margin: auto;
3      text-align: center;
4      width: 650px;
5      height: 150px;
6      border-style: groove;
7  }

```

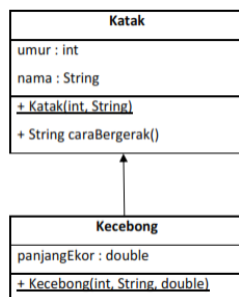
- Output



- Analisis

Di atas adalah program dengan nama method boleh Sama, Tapi Jumlah parameter mesti berbeda nilai yang di Return harus mempunyai tipe yang sama.

### 3. Buatlah Program berdasarkan UML dibawah ini



Dan buat objek dengan karakteristik seperti tabel dibawah ini

Obyek	umur	nama	panjangEkor	caraBergerak
O1	5	Froggy		melompat
O2	2	Junior Frog	10	berenang

## Source Code

- PHP

```
indexNo3.php X
indexNo3.php > html > body > table > tbody
1  <!-- Aini Azzah
2      21091397006
3      2021 B -->
4
5  <?php
6      require_once 'Prak4No3.php';
7  ?>
8
9  <html lang="id">
10 <head>
11     <link rel="stylesheet" type="text/css" href="Prak4No3.css">
12     <title>Praktikum 4-No. 3</title>
13 </head>
14 <body>
15 <h2><center>Soal No.3</center></h2>
16 <table align="center">
17
18     <tr align="center">
19         <thead>
20             <td>Objek</td>
21             <td>Umur</td>
22             <td>Nama</td>
23             <td>Panjang Ekor</td>
24             <td>Cara Bergerak</td>
25         </thead>
26     </tr>
27
28     <tbody>
29     <tr>
30         <td>01</td>
31         <td><?=$katak->getUmur() ?> </td>
32         <td><?=$katak->getnama() ?> </td>
33         <td>-</td>
34         <td><?=$katak->carab Bergerak() ?> </td>
35     </tr>
36
37     <tr>
38         <td>02</td>
39         <td><?=$kecebong->getUmur() ?></td>
40         <td><?=$kecebong->getNama() ?></td>
41         <td><?=$kecebong->getpanjangekor() ?></td>
42         <td><?=$kecebong->carab Bergerak() ?></td>
43     </tr>
44 </tbody>
45
46 </table>
47 </body>
48 </html>
```

```
indexNo3.php  Prak4No3.php X
Prak4No3.php > PHP Intelephense > Kecebong
1 <!-- Aini Azzah
2     21091397006
3     2021B -->
4
5 <?php
6
7 class Katak{
8     protected $umur, $nama;
9     public function __construct($umur, $nama){
10         $this->umur = $umur;
11         $this->nama = $nama;
12     }
13     public function getUmur(){
14         return $this->umur;
15     }
16     public function getNama(){
17         return $this->nama;
18     }
19     public function caraBergerak(){
20         return 'Melompat';
21     }
22 }
23
24 class Kecebong extends Katak{
25     private $panjangEkor;
26     public function __construct($umur, $nama, $ekor){
27         $this->panjangEkor = $ekor;
28         parent::__construct($umur, $nama);
29     }
30     public function getpanjangekor(){
31         return $this->panjangEkor;
32     }
33     public function carabergarak(){
34         return 'Berenang';
35     }
36 }
37
38 $katak = new katak(5, 'Froggy');
39 $kecebong = new kecebong(5, 'Junior Froggy', 10);
40
41 ?>
```

- CSS

```
indexNo3.php X  Prak4No3.php  # Prak4No3.css X
# Prak4No3.css > h2
1 h2{
2     margin: auto;
3     text-align: center;
4     padding-bottom: 10px;
5 }
6
7 .table{
8     margin: auto;
9     font-family: sans-serif;
10    border-collapse: collapse;
11 }
12
13 .table, td{
14     border: 1px solid;
15     padding: 8px 10px;
16 }
17
18 thead{
19     font-weight: bold;
20 }
```



- **Output**



- **Analisis**

Keyword super tidak bisa digunakan secara langsung didalam method static seperti pada method main, jadi harus di panggil pada method void atau return terlebih dahulu lalu panggil pada method main/static.